

Tuberculosis and HIV

Tuberculosis (TB) is a disease caused by infection with the bacteria *Mycobacterium tuberculosis*. It is estimated that one-third of the world's population is infected with *M. tuberculosis* and, worldwide, TB is the leading cause of death among persons living with HIV (AIDS.gov).

There are two types of TB infection—latent and active. Persons with latent TB infection (LTBI) do not have active symptoms and cannot spread the disease to others. However, persons with LTBI can develop active disease with a lifetime risk of reactivating estimated at 5–10% (World Health Organization, 2015). Persons with active TB are usually symptomatic and infectious, releasing bacteria into the air by coughing or sneezing (CDC, 2011).

In the United States, rates of TB infection have been decreasing since the 1950s, with a slight increase in cases in the early 1990s (CDC). In 1953, the U.S. tuberculosis infection rate was 52.6 cases per 100,000 population and by 2013, had declined to 3.0 cases per 100,000 ($n=9,582$) (CDC, 2014). Since 2001, the majority of cases in the U.S. have been foreign born; 65% of cases in 2013 were among foreign-born individuals (CDC, 2014).

In 2013, about 7% of TB cases in the U.S. were HIV positive (CDC, 2014). Among persons who are co-infected with both HIV and TB, progression to active TB disease is more likely to occur with some estimates as high as 26–31 times more likely than among persons who are not HIV-positive (World Health Organization). Due to the risks associated with co-infection, CDC recommends that all persons living with HIV disease be tested for TB and that those with LTBI initiate TB treatment (AIDS.gov).

Tuberculosis in Illinois

In 2013, Illinois ranked 17th among all U.S. states in the rate of TB cases with 327 cases of TB reported or 2.5 cases per 100,000 population (CDC, 2014). As seen nationally, cases of TB in Illinois have been declining. From 2009–2013, the number of TB cases in Illinois declined by almost 22%

(Illinois Department of Public Health Tuberculosis Program, 2014).

Comparable to national estimates, in 2013, 65% of TB cases in Illinois were among foreign-born persons (CDC, 2014). The highest number of cases occurred among those who had been in the U.S. for ≥ 20 years (CDC, 2014). Most TB cases (95%) reported from 2009–2013 in Illinois were among persons residing in non-rural counties (see section, “Rural Communities”).

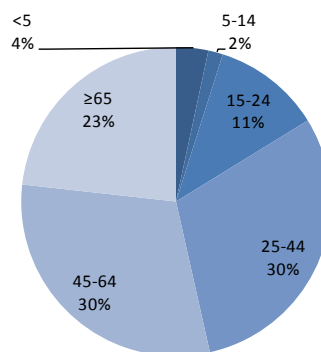
Sex

From 2009–2013, the majority of TB cases in Illinois were diagnosed among men (60%) (Illinois Department of Public Health Tuberculosis Program, 2014).

Age at Diagnosis

In 2013, the majority of diagnosed TB cases were among adults over the age of 25 years (83%) with most cases seen among adults 25–64 years (60%) (CDC, 2014).

Figure 1. Tuberculosis Cases by Age at Diagnosis, Illinois, 2013

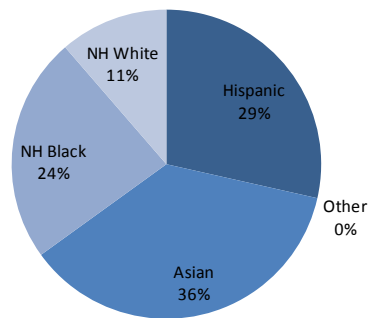


Source: CDC, 2014

Race/Ethnicity

In 2013, 29% of the TB cases reported in Illinois were among Hispanic individuals. Among the non-Hispanic (NH) population, the highest percentage of cases occurred among Asians (36%) followed by NH blacks (24%). NH whites accounted for 15% of TB cases in 2013 (CDC, 2014).

Figure 2. Tuberculosis Cases by Race/Ethnicity, Illinois, 2013



Source: CDC, 2014

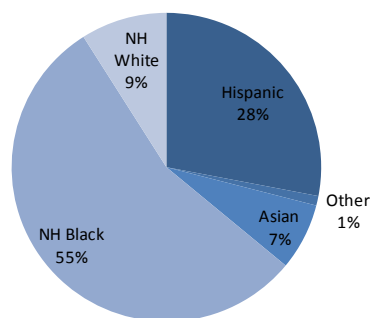
HIV and TB Co-Infection

From 2009–2013, of the 1,822 TB cases reported in Illinois, 1,555 had a known HIV test result. Of these, 100 cases or 6.4% were reported to be co-infected with HIV (Illinois Department of Public Health Tuberculosis Program, 2014).

Among those co-infected with TB and HIV, 79% were male. Males with TB were more likely to be co-infected with HIV than females reflecting the higher proportion of males infected with HIV in Illinois (see section, “Overview of HIV Disease in Illinois”).

Twenty-eight percent of co-infected cases were Hispanic, which was similar to the overall distribution of TB cases (Figure 2). NH blacks were more likely to be co-infected with HIV. From 2009–2013, 55% of co-infected cases were NH black, though NH blacks accounted for 24% of TB cases in Illinois (Figure 2). The higher levels of co-infection reflect the higher prevalence of HIV disease among the NH black population (Illinois Department of Public Health Tuberculosis Program, 2014).

Figure 3. Tuberculosis and HIV Co-Infected Cases by Race/Ethnicity, Illinois, 2013



Source: Illinois Department of Public Health Tuberculosis Program, 2014

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